ABSTRACT OF THE DISCLOSURE

There is provided a plasma treatment apparatus according to which an upper electrode cover window member can easily be replaced, and hence the cost of maintenance of the plasma treatment apparatus can be reduced. A plasma treatment apparatus 1 has a plasma treatment vessel 2 that is made of an electrically conductive material and has an internal chamber 15 in an upper portion thereof, an upper electrode 12 that is disposed in an upper portion of the internal chamber 15, and an internal viewing tube 100 that is provided in the upper electrode 12. The upper electrode 12 is comprised of an upper electrode main body 32, and an upper electrode cover 31 that is for isolating the upper electrode main body 32 from a plasma region 41 formed inside the internal chamber 15. The upper electrode cover 31 has a hole formed therein at a location corresponding to an opening 32a in the upper electrode main body 32, and a window member 31a that is comprised of a transparent member and has a shape complementary to that of the hole is fitted into the hole.